GrummanWorld

Volume 7, Number 1 | Our Employees Are Our Major Shareholders | January 15, 1988

The Inside Story. *On temporary assignment from Grumman Houston, Millie Weaver installs the wiring for avionics on an F-14D prototype at Calverton Operations. (Photo by Karl Thoma)*

Grumman To Build Crew Quarters For Space Station

The astronauts aboard tomorrow's Space Station will sleep and shower in quarters outfitted by Grumman.

Grumman's Space Systems Division is on a Boeing-led team that recently won a contract for Work Package One from NASA's Marshall Space Flight Center. Grumman will design and build the station's crew quarters. The Space Station is scheduled to be assembled in orbit in early 1994 and to be manned by 1995.

This 10-year work package is worth about $750 million to Boeing; Grumman's share of the work spans five years. About 100 Grummanites, in Bethpage and Houston, will work on the project at its peak. Besides hardware design and construction, Grumman will also provide technical support to Boeing on the habitat module.

The crew quarters will include facilities for sleeping, personal storage, and privacy provisions. Restraints and mobility aids will assist the astronauts in moving and working in zero gravity. A full body shower will also be provided for personal hygiene. The quarters will accommodate up to eight astronauts.

"By the end of the five years, Grumman will be outfitting the flight spacecraft," says Jerry Goldmacher, vice president—Space Station for the Space Systems Division. "Grummanites will work closely with the astronauts to make their crew quarters and hygiene facilities as comfortable and useful as possible for the long stays in orbit."

As currently envisioned, each crew member will have an individual bedroom/office. The personal hygiene facilities, equipped with full showers, will be like those in a dormitory. Though private, they will be shared by the crew.

The astronauts will not have conventional beds but will sleep in vertical sleeping bags, held in place by restraints. That is because in the zero gravity of space, people do not sense much difference between lying down or standing up.

In contrast to aircraft

(Continued on page 3)

Loss of ATA 'A Disappointment'

'Our aircraft business doesn't depend on any single contract,' says Caporali

On December 23, the U.S. Navy announced the selection of McDonnell Douglas and General Dynamics to develop the Advanced Tactical Aircraft (ATA). Grumman had been competing for this contract in a team with Northrop and LTV.

"Of course, we're disappointed," says Aircraft Systems President Renso Caporali. "We put a number of years and made substantial investments in the ATA. We believe our team offered a fine product at a fair price to the Navy."

This does not mark the end of Grumman's aircraft business by any means, says Caporali. "Our aircraft business doesn't depend on any single contract," he says. "We have four tactical aircraft in production now — more than any other company in the world — and they're all being updated with new systems that will make them capable of being produced for a long time."

Grumman's $6.8 billion backlog is the largest in company history. In addition, it has a full plate of development work.

The current aircraft business base is solid for 10 years or more. F-14 production could increase from eight to 17 aircraft a year over at least the next 10 years. EA-6B production is scheduled to increase from nine to 12 and there is no successor to this electronic countermeasures aircraft. The E-2C is being produced at a rate of six per year, has excellent foreign sales potential and it, too, has no successor in sight. The future of the A-6 is less certain as to exactly what model changes are to be incorporated, but production of some version appears likely for some time to come.

In recent years, Grumman has expanded its business base so that it is not dependent on a single customer. Long Life Vehicles for the U.S. Postal Service, Joint STARS for the Air Force and Army, and the Intermediate Forward Test Equipment for the Army are prime examples.

The major challenge in Aircraft Systems is to tackle the current programs in house, says Caporali. "I firmly believe that how well we handle our current development and production programs will determine our future. We're fortunate to have four tactical aircraft in production now that are all being enhanced. Beyond that we're also working on advanced surveillance aircraft and other future requirements. We intend to continue and to expand our aircraft business."■

What's Inside

A Letter From The Chairman - Back Cover

Postal Service Cuts Don't Affect LLV Order - P. 2

Grumman Wins NASA Pact For Robotic Vehicle - P. 4

1988 Grumman Blood Drive Begins - P. 5

The Pearsalls Are Having A Hulluva Time - P. 6

Over 2,000 Attend Annual 25-year Luncheon - P. 7

Line Up. *These two A-6F prototypes had to jockey for parking space on the Calverton flight line on November 23 with other A-6s, F-14s and an EA-6B. (Photo by Gerry Costello)*

Busy Day At Calverton

Traffic was congested on November 23 at the Calverton Flight Test Facility. But the jam wasn't on Grumman Boulevard or the other roads at the facility. It was on the flight line.

Grumman plane captains sent nine aircraft up into the skies that day. Four were first flights. "We do four or five flights on a normal day," says Don Fish of Flight Test. "We've had nothing like this in the recent past."

It was the day of the maiden flights of the first F-14D avionics test aircraft and the second A-6F prototype. The other two first flights were F-14A M13 — one of the Block 60/65 update aircraft — and A-6E TR126 of the modification program.

November 23 was also the first day that the new Automated Telemetry Station, with its real-time systems test capabilities and three-dimensional radar, was used for real-time flight testing.

And while all this was going on at Calverton, a Navy crew piloting E-2C A24 and a Grumman crew in C-2A No. 23 lifted off the runway at Bethpage for Navy and Grumman acceptance flights, respectively.■

Cool Reception. *Dan Deacon helped make the return to work for Grummanites in Building 5 in Bethpage a little easier. Long Islanders plowed through six inches of snow to get in for the first workday of 1988. (Photo by Bob Settles)*

Stamping Them Out. *Grummanites in Montgomery mate another LLV aluminum body to an S-10 chassis. Postal delivery vans are now at work in 49 states and Puerto Rico. (Photo by Bob Settles)*

Postal Service Protects LLVs From Spending Cuts

The $1.25 billion cut in the U.S. Postal Service's budget will not affect the delivery of Grumman Long Life Vehicles (LLV).

On December 23, the Postal Service announced major cost-cutting measures to satisfy the federal budget cuts. The Service cut in half its building construction plans for the next two years, closed selected post offices across the country on two Saturdays: December 26 and January 2 (Saturday mail deliveries cannot be cancelled without congressional approval), and consolidated some transportation for third- and fourth-class mail.

The Service also announced that it was going to cut back planned purchases of some new vehicles, but the LLV, it was later learned, was not to be among them.

"The Postal Service decided that the LLV contract is not going to be touched," says Allied's LLV Division President Len Rothenberg. The basic contract calls for Grumman to build 99,150 LLVs for the Postal Service.

Some stretching out of the LLV delivery schedule was considered. But the penalty costs that the Postal Service would have incurred would have negated any gains from a program slowdown. Moreover, the Service needs the LLVs.

"These new vehicles are going to save them money with lower fuel consumption and decreased maintenance costs," says Rothenberg. "They are spending a lot of money maintaining their current fleet of vehicles."

The LLVs are already in 49 states and Puerto Rico. Grummanites at the Montgomery, Pennsylvania, plant had produced over 7,500 LLVs by the end of 1987. That was just 363 short of their year-end goal, despite problems with the robotic paint system.

"We have learned how to solve the paint problem. We will make up those units in the first months of this year," says Rothenberg. "The people here are working real hard. They are under a lot of pressure and are responding very well."■

Grumman On Boeing Team For Space Station Work

(Continued from page 1)

manufacturing, there is no "production phase" in a space hardware contract. In all, only three or four models of each piece of hardware will be built: a development model, prototype, qualification/test models and flight hardware.

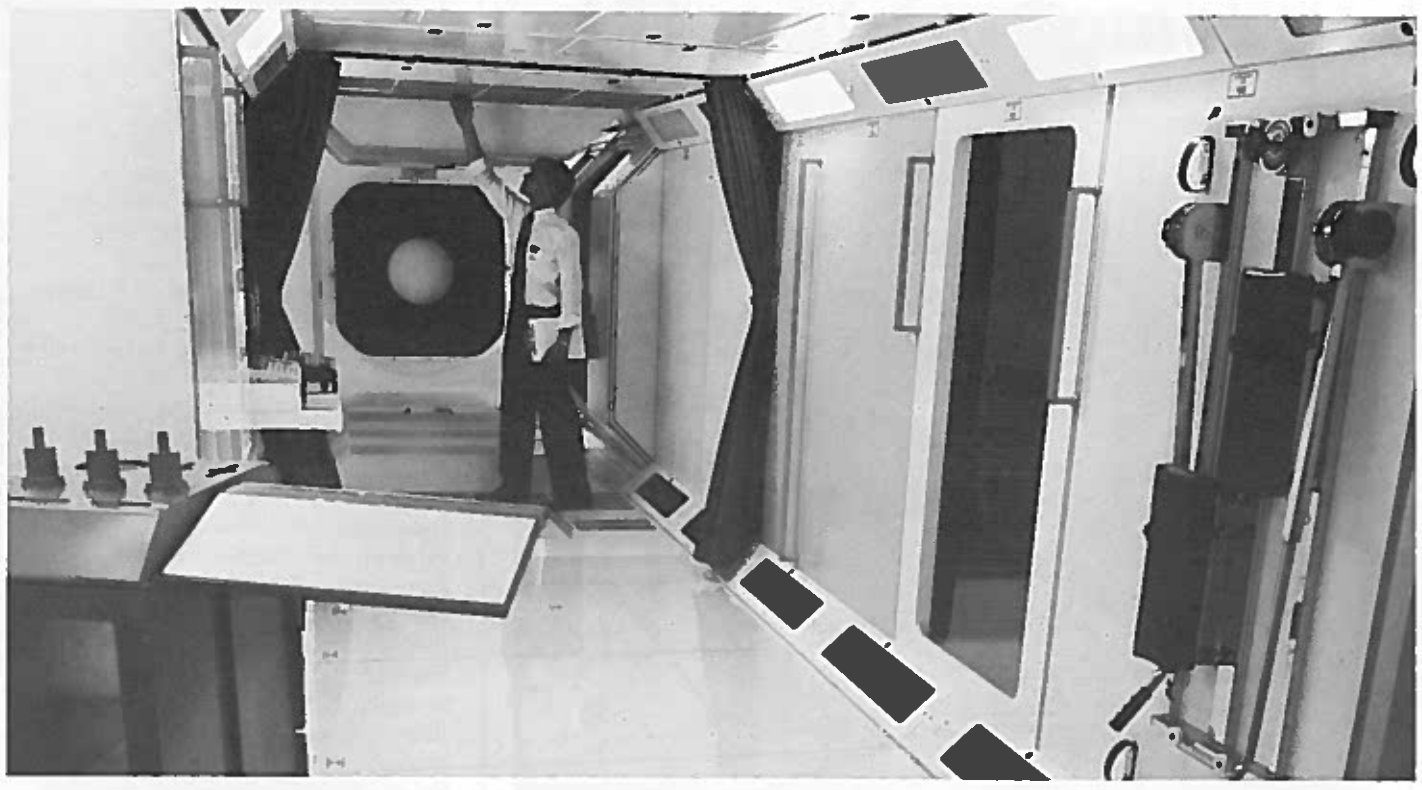
"The last two could be the same hardware," says Goldmacher. "Qualification testing proves that our equipment will survive in the space environment. Tests are run at so much stress and for so many hours. If the test model doesn't destruct, it can become a flight article."

Other modules encompassed by Work Package One are the laboratory module; logistics modules, used for resupply and storage; interconnecting structures; an environmental control and life support system; and thermal control and audio-visual systems. Teledyne Brown, Lockheed, and TRW are also on the Boeing team.

A waste management compartment and a temporary, strap-on radiator are in Work Package One. But Boeing is still evaluating bids, including Grumman's proposal for the radiator. "This would control the early Space Station's air conditioning and temperatures until the full station thermal control system is installed," says Goldmacher.

Grumman had also been on a Rockwell team bidding for the larger Work Package Two, which includes the station's framework. That contract was awarded to a McDonnell Douglas-led team.

"But between this work package, the Orbital Maneuvering Vehicle, and the Space Station Program Support Contract, Grumman will still have a lot of involvement on the Space Station," says Goldmacher. "And there are other opportunities."



Habitat Sweet Habitat. *At Marshall Space Flight Center, an engineer inspects a Grumman-designed mockup of the Space Station crew quarters. (Boeing photo)*

Among those, Grumman recently won a $1.5 million, Phase B contract in the telerobotics field. Preliminary work is being done on a remotely controlled, highly maneuverable Flight Telerobotic Servicer for use on the Space Station.

Through video and other sensing technology, the astronaut will be provided with a sense of "being there." This robotic servicer will do tasks that are either too dangerous or out of reach for the astronaut.

NASA is expected to award a $300 million-plus, full-scale development contract in the latter part of 1988. Grumman and Martin Marietta have identical study contracts and are competing for this next phase.

"Winning that would put Grumman on the ground floor of a major new industry, with a product line that could be used in other places besides space," says Goldmacher. "Eventually, teleoperated robots will be used in almost every phase of our lives where service work is done."

A footnote: in December, a set of wings for the fourth, as-yet-unnamed U.S. space shuttle was shipped from Bethpage to Rockwell in Palmdale, California. They were originally intended to be spares but will instead become part of the spacecraft that replaces *Challenger*.■

Grumman World — Vol. 7, No. 1, January 15, 1988. Published twice a month for active and retired employees of Grumman Corporation. 1111 Stewart Ave., Bethpage, N.Y. 11714. W.B. Jones, Vice President-Public Affairs.

Norine Lyons
Director - Corporate Publications
575-3720

Kathleen Housley
Editor — 575-3293

Associate Editors
Bob Sample — *575-5118*
Susan Vassallo — *575-8999*
John Vosilla — *575-5119*

Bernadette Gately
Editorial Assistant — 575-4334

Unit Values

The unit values for the Grumman Employee Investment Plan as of November 30, 1987 (compared to the October 1987 figures) are:

Equity Fund
3.474 down from 3.792

Fixed Income Fund
5.815 up from 5.783

Guaranteed Income Fund
2.648 up from 2.626

Company Stock Fund
$21.13 down from $22.07

Two More Du Pont Plants Sign Service Pacts

BREVARD, North Carolina — The Du Pont plant here makes film for X-ray equipment. It is also the latest of that company's facilities to purchase services from Grumman Systems Support.

The contract, which is in excess of $400,000, spans two years. Two Grummanites will be assigned to Brevard, a town of 6,000 in the Blue Ridge region. They will work on Digital Equipment Corporation (DEC) mainframe and IBM personal computers. This equipment includes both process control and business systems.

"We stress teamwork," says Carla O'Millian, Grumman's national account manager—Du Pont sales. "While the support people are employed by Grumman, they work side-by-side with Du Pont people — including those people handling maintenance of other computer equipment."

Another Du Pont plant in the southeast — this one in Camden, South Carolina — signed a contract in the $400,000 range with Grumman Systems Support. The contract is for maintenance of its DEC quality control computers — about one-fourth its total computing equipment.

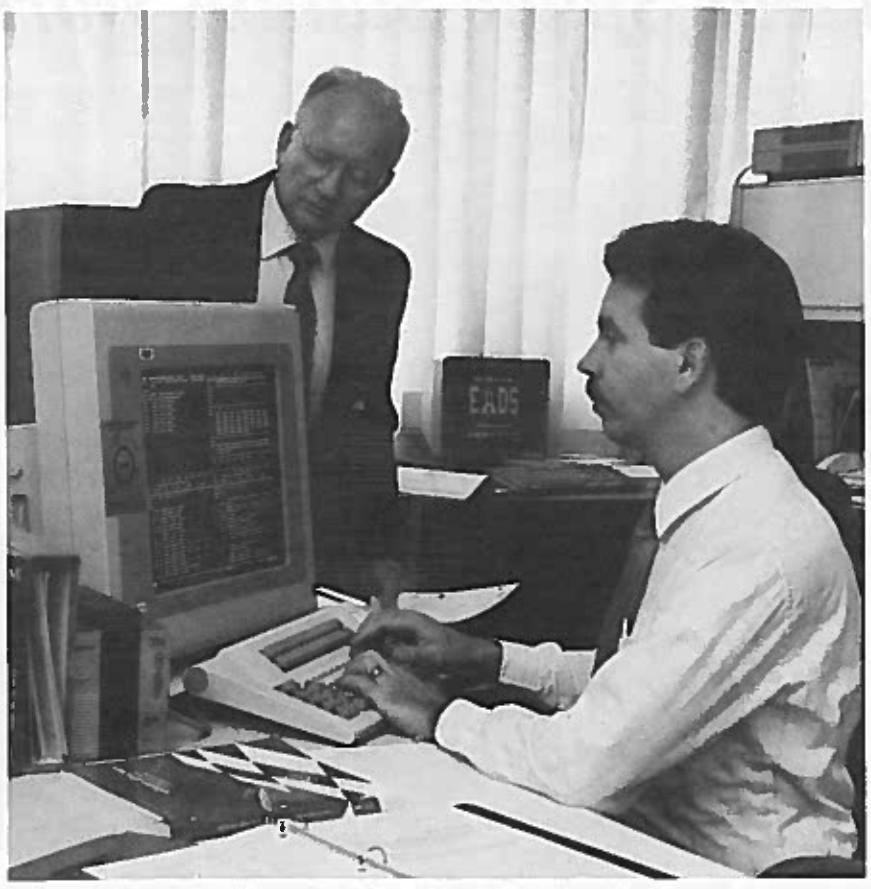
In Camden, Du Pont manufactures synthetic fibers for tires, cloth, bulletproof vests, and automobile upholstery. One Grummanite will be assigned to the facility, which is Systems Support's first site in South Carolina. Camden is a town of 8,000, 30 miles northeast of the state capital, Columbia.

Previously, Du Pont facilities in Chattanooga, Tennessee; Pittsburgh, Pennsylvania; and Fayetteville, North Carolina, signed contracts with Grumman Systems Support. The unit has a master service agreement with Du Pont for third-party computer maintenance; "third-party" means service is provided by a firm other than the computer manufacturer or vendor.■

Guaranteed Income Fund Rate Changes

The Grumman Employee Investment Plan has announced a Guaranteed Income Fund rate that will be in effect for the first six months of 1988.

From January through June, money on deposit in that fund will earn an annualized yield of 10.75 percent. Because of the volatility of the financial markets at this time, the rate will be adjusted for the second half of 1988. The rate for the second half will be announced during the second quarter.■



Super Number Cruncher. *At NASA's Marshall Space Flight Center in Huntsville, Alabama, a Grumman Data Systems team — including Monte Cunningham (L), EADS program director, and Tom Brister, systems analyst/programmer — supports the Engineering Analysis and Data System (EADS). The EADS' brain is the Cray X/MP supercomputer. NASA uses EADS for work on the Space Shuttle and other programs. (Photo by Bob Settles)*

Grummanites Get New Appointments

The following Grummanites recently received new assignments:

Aircraft Systems

Advanced Technology: Rudolph Zanella, group head, Fabrication Systems Technology.

Bethpage Operations: Sue Lohrer, program manager, A-6F; John Lanphear, manager, Tool Design and Methods.

Integrated Logistics Support: Irwin Fishberg, ILS program manager, F-14D; Arthur Granata, ILS Program Manager, F-14; George M. Keane, group head, Automatic Test Generation, Digital Test Program Sets Engineering, ILS Engineering; Victor Kueffer, engineering specialist, RF/Analog Test Program Sets Engineering, ILS Engineering; Arthur Martin, assistant manager, Customer Supply Requirements; Rocco Romeo, project manager, ILS Engineering, EF-111A; Robert Wirth, engineering specialist, Digital Test Program Sets Engineering, ILS Engineering; George F. Gilmartin, ILS program manager, E-2C Program; John A. Allsopp, section head, RF/Analog Test Sets Engineering, ILS Engineering.

Manufacturing Engineering: William Pagels, section head, Chemical Engineering; John Miller, section head, Optical Metrology/Assembly Technology.

Parts Fabrication Center: Barbara Flanagan, manager, Budgets; Mary M. Hansen, supervisor, Administration; Robert Milani, manager, Industrial Engineering.

Product Operations: Gary Andrews, group leader, EA-6B Program Planning and Scheduling; John Johnson, group leader, F-14 Program Planning and Scheduling; Chesley Greening, section head, Program Planning and Scheduling; Bruce Hommell, product operations program manager, Aerostructures/Subcontracts Program.

Technical Operations: Vincent L. Accolla, manager, ASD Financial Computing; Aldo Arena, group head, Flight Controls and Mechanisms; Scott Betchley, project leader, Avionics Design, E-2/C-2 Program; Robert Bidonde, project leader, F-14 Vehicle Subsystems; Joseph Duda, group leader, Communications Systems, F-14D Program; Vladimir Dugandzic, group leader, Navigation and Control Technology; Heyward Glick, group leader, Project Planning, A-6 Program; Robert Goldstein, engineering specialist, Dynamic Loads; Richard Goldzung, group head, Low Observables Subsystem Design; Reginald T. Grant, principal engineer, Systems Development Technology; Milan D. Gross, manager, ASD Computing, Development Programs; David Grynberg, manager, ASD Computing, Production Systems; Robert Krepski, group head, Low Observables Vehicle Integration; Joseph McCarty, group leader, Specifications, F-14 Program; Robert Mohrman, technical specialist, Loads Integration; Richard Nastasi, group head, Low Observables Analysis & Test; Charles A. Parente, engineering specialist, Acoustic Laboratory Operations; Norman Pollack, project leader, Subsystem Support, F-8 Peace Pearl Program; Joseph Rietschlin, group leader, Attack/Intercept/Weapon Employment, F-14D Program; Catherine Waters, section head, Low Observables System Design and Integration.■

Retiree Obituaries

George Achhammer of E470 Island Lake Rd., Shelton, Washington, died Dec. 6, 1987. He retired in 1966.

John A. Anderson of 1168 Harris Dr., Camarillo, California, died Sept. 12, 1987. He retired in 1980.

Benjamin Bergenfeld of Century Village, Apt. 105, Deerfield Beach, Florida, died Nov. 9, 1987. He retired in 1985.

Harry Borley of 11 Birchwood La. Hicksville, N.Y., died Nov. 12, 1987. He retired in 1966.

William C. Cole of 15 S. Emerald La., Amityville, N.Y., died Nov. 4, 1987. He retired in 1983.

Nelson C. Cooper of 1241 Petit Ave, Ventura, California, died Nov. 12, 1987. He retired in 1978.

Lester T. Flewellin of 1670 Kalakaua Ave., Honolulu, Hawaii, died Oct. 10, 1987. He retired in 1962.

Joseph J. Gaeta of 21 Old Wood Rd., Port Washington, N.Y., died Nov. 25, 1987. He retired in 1967.

Charles G. Gemuendt Jr., of 806 SE Pecan Circle, Barefoot Bay, Florida, died Nov. 29, 1987. He retired in 1978.

Neil Grasso of 103-35 120th St., Richmond Hill, N.Y., died Nov. 28, 1987. He retired in 1981.

William F. Grau Sr. c/o Marion Sitler of 113 Sanford Rd., Centereach, N.Y., died Nov. 8, 1987. He retired in 1980.

Ronald R. Green of 259 Noyac Rd., Southampton, N.Y., died Nov. 21, 1987. He retired in 1980.

Charles Hutcheson of 1259 Plantation Pl., Daytona Beach, Florida, died Nov. 15, 1987. He retired in 1964.

Harold L. Kominski of 298 Main St., Farmingdale, N.Y., died Nov. 7, 1987. He retired in 1978.

Frederick Kuestner of 1065C Tartan Dr., Palm Harbor, Florida, died Dec. 6, 1987. He retired in 1974.

Joseph E. Larney of 890 Lois La., Titusville, Florida, died Oct. 28, 1987. He retired in 1974.

Gordon Maddox of 300 Pine Hollow Rd., Oyster Bay, N.Y., died Nov. 10, 1987. He retired in 1971.

Dorothy E. Martin of 14581 Brookridge Blvd., Brooksville, Florida, died Dec. 3, 1987. She retired in 1974.

Leonard Miller of 68 Continental Pl., Glen Cove, N.Y., died Oct. 17, 1987. He retired in 1982.

Edward J. Powelski of 4100 Talmaga La., Greensboro, North Carolina, died Nov. 11, 1987. He retired in 1977.

Morris Raff of 4134 Carambola Cr., Coconut Creek, Florida, died Nov. 13, 1987. He retired in 1976.

William J. Reilly, Jr. of 2200 E. Mary Lue St., Inverness, Florida, died Oct. 8, 1987. He retired in 1965.

Charles N. Rizzo of 210 Tree Rd., Centereach, N.Y., died Nov. 8, 1987. He retired in 1987.

John G. Rodda of 175 Thurms Estates, Fresh Pond Rd., Calverton, N.Y., died Nov. 9, 1987. He retired in 1976.

David Romano of 426 18th St., West Babylon, N.Y., died Nov. 28, 1987. He retired in 1978.

John Sebald of 10 Old Wood Rd., Stony Brook, N.Y., died Nov. 19, 1987. He retired in 1968.

Joseph Smith of 5 Magnolia Dr., Selden, N.Y., died Nov. 6, 1987. He retired in 1978.

Joseph F. Smulcheski of 4 Carole Rd., Southold, N.Y., died Nov. 23, 1987. He retired in 1976.

Florence Stephenson of 92 East St., Hicksville, N.Y., died Nov. 12, 1987. She retired in 1975.

Edward Strange of 11 Holmes Pl., Greenlawn, N.Y., died Nov. 21, 1987. He retired in 1984.

Joseph J. Territo of 2929 E. Ocean Blvd., Stuart, Florida, died Oct. 29, 1987. He retired in 1971.

Antoni Wrobel of 30 Irma Ave., Port Washington, N.Y., died Nov. 15, 1987. He retired in 1953.

Melroy C. Wypler of 7 Stratton Dr., Huntington Station, N.Y., died Nov. 4, 1987. He retired in 1976.

Santi Zuccaro at P.O. Box 907, Inverness, Florida, died Oct. 6, 1987. He retired in 1970.

Letters

Dear Editor,
I recently had my fishing boat repaired in our Boat Division in Marathon, N.Y. I have nothing but praise for this division. My son and I were treated graciously and in an expedient manner by Greg Harvey and his staff.

My visit to the Marathon plant renewed my faith in Grumman and I know my family and I will not hesitate to buy another Grumman-made boat.

Sincerely,
Mary Murphy
Data Systems
GHQ

Entry Deadline Is March 4 For '88 Photo Contest

All Grummanites are invited to enter the 1988 Public Affairs photography contest.

Winning entries will be enlarged to 20 x 30 inches, framed, and then displayed in Corporate Headquarters for one year. Upon completion of the exhibit, the framed prints will be returned to the winners along with an 8 x 10 inch negative of the print.

Here are the contest rules:

★ All photographs must be in color.

★ Any size print can be submitted.

★ An original negative or slide of the submitted photo must be available upon request.

★ All photos must be clearly labeled with your name, mail stop, and telephone number.

Entry deadline is March 4; winners will be announced by March 20.

Mail entries to Monique Monaco, A33-GHQ. If you have any questions, call Monaco on (516) 575-2898.

Dipping Chips. *Harry Browne, director of material at Electronics Systems, Benton Park, Pa., inspects the new automatic dip inserter. Under computer code, this machine inserts semiconductor chips into a printed circuit board. It can handle 200 boards an hour. Among its first tasks is an RCA subcontract to produce 2,000 circuit boards. (Photo by Bob Settles)*

Value Engineering = A Pleased Customer

Whether it's buying a car or a computer, today's consumer demands value — the best buy for the money.

The U.S. Navy is a value-conscious consumer, too. For this reason Grumman has a program designed to give its primary customer the very best product. The program is called Value Engineering.

Although such programs have been around for several decades, the Navy has become more aggressive about Value Engineering within the last few years. That's because of the mounting Federal deficit.

"The Navy is interested in anything that can save money over the life cycle of an aircraft," says Bill Wollman, the program's manager. "Recently, the Navy has helped by making it easier to submit engineering change proposals and by speeding up its review cycle. Cost savings are shared fifty-fifty with Grumman."

A value engineering change can result in a more efficient production method. Obtaining a lower-cost part that will perform just as well is also value engineering. So is making the aircraft easier to maintain.

Here's an example of one recently approved value engineering change: the E-2C has a temperature controller that keeps its windscreen clear. In the design of the Reprocured C-2A Greyhound, which uses an airframe similar to the E-2C, a better device was incorporated for less cost.

"We made a proposal to the Navy to put the same improved temperature controller on the E-2C, and it was approved," says Wollman. The Navy will save an estimated $3 million in life-cycle costs, based on anticipated deliveries.

A new method has also been proposed for manufacturing titanium wing beams for the F-14 Tomcat. In the current method, material has to be machined out of a U-shaped titanium forging.

"We have proposed to instead buy two L-shaped extrusions and electron-beam weld them together," says Wollman. The change would save both production time and material cost: titanium is an expensive metal.

Anybody in any Grumman division can submit an idea for a value engineering change proposal, provided it is pertinent to Grumman aircraft. Project Sterling suggestions should also be sent in for an appropriate award.

For more details, contact Wollman at (516) 575-1986.■

Obituaries

Doris A. Guida of Facilities and Engineering Management, Bethpage, Corporate Services Division, died Oct. 23 at the age of 57. She had been with the company since 1973 and resided at 1 Haven La., Old Bethpage, N.Y.

Oscar A. Kreischer of Requirements Planning, Bethpage, Aircraft Systems Division, died Nov. 23 at the age of 62. He had been with the company since 1949 and resided at 90 Midwood Ave., Farmingdale, N.Y.

Thomas E. Ostrick of ILS Production, Bethpage, Aircraft Systems Division, died Nov. 17 at the age of 39. He had been with the company since 1974 and resided at 21 Slate La., Levittown, N.Y.

Lawrence R. Pangburn of Electro Environment Effects, Bethpage, Aircraft Systems Division, died Nov. 20 at the age of 62. He had been with the company since 1965 and resided at 122 Northfield Rd., Hauppauge, N.Y.

Marilyn Pomponi of Administration, Bethpage, Aircraft Systems Division, died Oct. 20 at the age of 53. She had been with the company since 1981 and resided at 67 Stevens Ave., Merrick, N.Y.

William L. Rohm Jr. of Instrument Test, Calverton, Aircraft Systems Division, died Nov. 13 at the age of 66. He had been with the company since 1965 and resided at 124 Academy St., Bayport, N.Y.

Stephen P. Ryhsen of Subsystems, Bethpage, Aircraft Systems Division, died Nov. 27 at the age of 52. He had been with the company since 1985 and resided at 54 State St., Brooklyn, N.Y.

John Watts of Maintenance, Bethpage, Corporate Services Division, died Nov. 20 at the age of 42. He had been with the company since 1985 and resided at 9 Elm Ave., Hempstead, N.Y.

Joe Young of Field Base Administration, Norfolk, Technical Services Division, died Nov. 17 at the age of 47. He had been with the company since 1979 and resided at 308 West Farmington Rd., Virginia Beach, Virginia..

DeStefano Heads 1988 Blood Program

"I don't think there is anyone who would not do everything possible to save life. I'm leading a program that makes it possible to save lives," says Vinny DeStefano, vice president of Production Operations, Aircraft Systems, and chairman of the 1988 Grumman Blood Progam.

By scheduling 132 blood drives for 1988 — seven more than last year — he and his team hope more Grummanites will help save lives by giving a pint of blood. Last year, Grummanites donated 11,543 pints. That was eight percent of the Long Island Blood Services (LIBS) goal of 146,000 pints.

LIBS says that Grummanites participate at a rate of 47 percent, which is the ratio of pints of blood to the total employee population. That compares to 76 percent for Gull Instruments, 44 percent for Chemical Bank and 29 percent for Newsday. Grumman's rate is considered excellent.

Grumman's goal this year is 13,000 pints. "There's no question that we're looking for the continued support of regular donors," says DeStefano, "and we will continue to concentrate on getting more first-time donors. I hope that Grummanites who have given blood before will bring a friend to a drive."

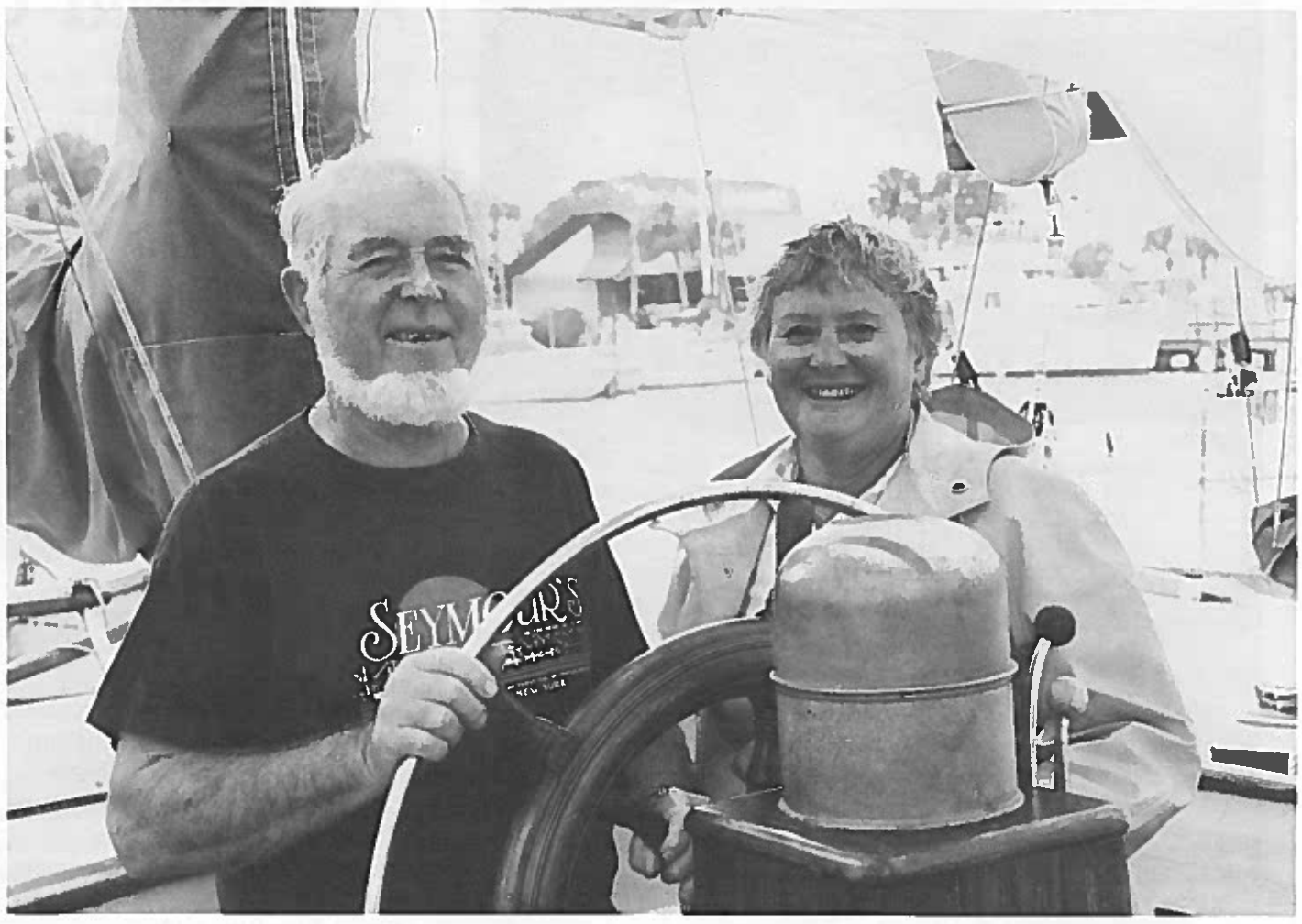
"It is absolutely safe to donate blood," he says. "The equipment used to collect a pint of blood is new and sterile and thrown away after one use. And every donor is given a mini physical to be sure it's safe for them to donate."

"Our thrust is on getting the message out through blood captains, who are vital to the program, says Pat Conklin, director of Administration for Production Operations and director of the '88 blood program. As did last year's team under Corporate Services Vice President Jake Bussolini, the 1988 team will again rely heavily on retiree volunteers. "The retirees do a hell of a job for us," says Conklin.■

January Blood Drives On L.I.

Date	Location	Time
Jan. 15	Bldg. 9	9 a.m. to 2:30 p.m.
Jan. 18	GDSI Woodbury	9 a.m. to 2:30 p.m.
		6 to 9:30 p.m.
Jan. 19	Bldg. 12	9 a.m. to 2:30 p.m.
Jan. 25	GHQ("O" donors)	9 a.m. to 2:30 p.m.
Jan. 26	GHQ	9 a.m. to 2:30 p.m.
		5 to 10:30 p.m.
Jan. 27	GHQ	9 a.m. to 2:30 p.m.
Jan. 28	Bldg. 237	9 a.m. to 2:30 p.m.
Jan. 29	Bldg. 237	9 a.m. to 2:30 p.m.

The Pearsalls Are Having A Hulluva Time



Planning Ahead. *Anne and Linc Pearsall decided 50 years ago to spend their retirement living on a sailboat. 'Linc took me sailing on our first date,' says Anne. 'He's still not sure whether I fell in love with him or sailing.'*

While courting, Linc and Anne Pearsall promised each other that someday they would sail around the world together.

On October 1, the Pearsalls will celebrate their 50th wedding anniversary. They haven't made the world cruise yet, but 10 years ago these two retired Grummanites took to the seas to live their dream.

Anne worked at Grumman for 17 years and Linc for 30. When Linc retired in 1976, they sold their house in Centerport, Long Island, gave its contents to their two daughters, bought a 41-foot sailboat and traded electric and phone bills for marina fees. For a year, Anne commuted from the boat to work.

"Every morning at 5:30 I would get into the dinghy and Linc would row me ashore," says Anne. "I always had a towel with me to kneel on so I wouldn't tear my nylons climbing out of the boat.

"When it snowed, Linc had to shovel the dock so I could get to work on time. I wore my boat shoes and had my hair in rollers. Before getting to Grumman, I would park behind some nearby store and quickly fix up for the office.

"One night I got back from work and the wind was really blowing. There was no way Linc could get to me. The guys on the dock were all teasing me about where I was going to sleep that night. I figured I'd have to stay in the office. But those same guys brought me out on their tugboat."

Now the Pearsalls only spend their summers docked in the Northport, Long Island, marina. As soon as September rolls around, they sail their boat *Pelagiac* down the coast to Florida. The name means "that which lives on the sea." It's equipped with a fireplace, two bathrooms with showers, two state rooms and a galley.

"We wake up around five in the morning and usually sail about 50 miles or six hours a day," says Anne. "Most times we arrive at a marina around three in the afternoon. We either cook on board or go out to dinner. Then it's early to bed and early to rise for the next day's excursion. It takes us about seven weeks to get to Florida.

"In the last 10 years we have travelled the Atlantic coast 20 times — 10 there and 10 back," says Anne. "The people on the water are as wonderful as the people at Grumman. We meet the same folks every time we make the trip. Some are from Canada, Michigan, or Ohio headed for the Gulf Coast or the Bahamas. I could use a secretary to help me keep in touch with all the friends we've made. We're not as unusual as you may think."

With the exception of a Loran radar system, which keeps them informed of their exact location in case of an emergency, the boat is run manually. "The more I can do myself the less chance of something breaking down," says Linc.

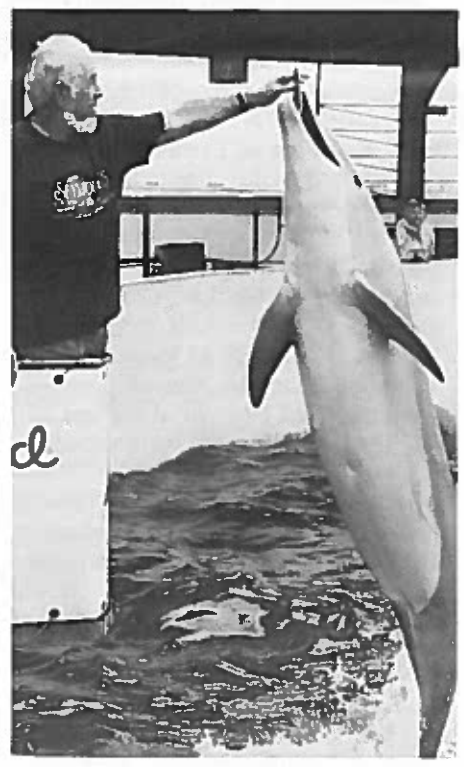
"We're a team," says Anne. "We share the navigation and the repairs. Linc does the sanding and I do the painting and varnishing. But of course, stay out of my galley!"

This winter, the Pearsalls are docked in Marineland, Florida. Linc is especially glad because he'll be able to see his girlfriend, June. That's what Anne calls the 500-pound dolphin who has taken a liking to him.

"Each dolphin collects little treasures like bottlecaps and coins, which it protects dearly. Even the trainers have a tough time trying to clean the tanks," says Anne. "Last time we were at Marineland, June went down to the bottom of the tank and came back with a reed in her mouth to present to Linc. Next time he was there one of the dolphins swam up, squeaked at him and then disappeared. She returned with a ball and threw it at him. We like to think that was June welcoming him back."

Linc is now 72 and Anne, 70. They often wonder what life will be like when they are unable to sail.

"I don't know what we'll do. We hate condos," says Linc. "I do know one thing, though. We'll at least have to get a waterbed."■



A Fishy Friend. *Linc Pearsall is buddies with a dolphin he calls June at Marineland, Florida.*

Programmed Tools

From a computer program called CATIA, a numerical control system was designed and used to program the tools that build the composite doors for the A-6 aircraft.

In the Tool Design Manufacturing Engineering Department, numerical control programmers Greg Patti (L) and Bob Beers (R) discuss with engineer Chris Rutkowski the design of the product.

Congratulations. *Ron Knight receives his 25-year watch from Chairman Jack Bierwirth. Knight was one of over 500 to make the quarter-century milestone. (Photo by Bob Sagliocca)*

Quarter-Century Club Meets

Over 540 Grummanites were honored as new members of the elite 25-year club at the Crest Hollow Country Club in Woodbury on December 8, 1987.

The 25-year luncheon drew over 2,000 Grummanites and retirees. Those who marked a quarter-century of company service each received a gold watch. On hand to congratulate the honorees were Chairman Jack Bierwirth; President John O'Brien, Vice Chairman-Technology Will Bischoff, Vice Chairman-Finance Bob Freese, Vice Chairman-Development Dan Heubner, Aircraft Systems President Renso Caporali, and Augie Ripp, president of the Grumman Retiree Club.

Personals

My family and I wish to extend our sincere appreciation and thanks to all my friends, co-workers and ESO for the beautiful flowers, cards, telephone calls and all other acts of kindness expressed to us during the recent loss of my father. **Blanche Baskerville and Family**

My family and I thank our friends, co-workers and ESO for their expressions of sympathy and support during the recent loss of my mother. **Carl Holmes and Family**

My family and I wish to thank all my friends, co-workers and ESO for their kind expressions of sympathy during the recent loss of my father Calvin. **David C. Chin and Family**

My family and I wish to thank all my friends, co-workers and ESO for their many kindnesses and expressions of sympathy over the recent loss of my wife Jane. **Bob Rennie**

I would like to thank ESO and my co-workers for their thoughtfulness during my recent illness. **Janet P. Cassford**

My family and I wish to thank all of our friends on the A-6 Program and ESO for their kind expressions of sympathy after the passing of my father. **Mario Obertis and Family**

I would like to express my appreciation and thanks to all my managers, co-workers, friends and ESO for their sympathy and support during the loss of my wife. **Jeff Capo and Son**

Many thanks to all of my friends, co-workers and those of my father's for their kind expressions of sympathy and support during the loss of my parents. **Joe and Lois Kasten**

I would like to express my sincere thanks for all your thoughts, flowers and expecially prayers during my recent illness. **Vera Goellner**

To all who knew my father Gerald Windus, my family wishes to thank you for your support, prayers and sympathy at the time of his passing. **Terry Windus**

My family and I wish to thank all those who expressed their sympathy on the passing of my mother. **Charles Savatteri**

My family and I wish to extend our deep appreciation and thanks to all my co-workers, friends and ESO for their kind expressions of sympathy during the recent loss of my mother. **Stephen R. Post**

The family of William Lloyd Rohm Jr. gratefully acknowledges your kind expressions of sympathy during our recent loss. **Dolores Rohm and Family**

My family and I wish to express our sincere thanks and deep appreciation to my co-workers and ESO for their kind expression of sympathy and condolences during the recent loss of my beloved husband. **Carmen M. Fernandez**

To the people on the F-14 program, ESO and the Grumman Flying Club: from time to time, Grumman employees are made aware of the family spirit that characterizes Grumman. The loss of my wife Mildred has been made a little more bearable by the flowers from ESO. My friends and co-workers on the F-14 have been more than generous with their contributions to the Don Monti Cancer Foundation. My fellow flyers in the Grumman Flying Club have also sent flowers. To all my close friends in the Grumman family, your condolences have been received with much gratitude. **Ed Murman**

Weather Emergency Numbers

Whether it's the snowstorms in the North or the cold bouts of winter in the South, employees can find out if their facility is open by calling special weather emergency telephone numbers. Some sites have also made arrangements with local radio stations to announce closings or delays.

On Long Island

Bethpage, Bohemia, Great River, and Melville—349-9400
Calverton—369-2266
Data Systems—364-8171

Grummanites on Long Island can also set their radio dials to: WGSM 740AM; WBLI 106.1FM; WGLI 1290AM; WGBB 1240AM; WNYG 1440AM; WLIM 1580AM; WALK 1370AM

Off Long Island

Arkadelphia, Ark.—(501) 246-4561; KVRC 1240AM
Glen Arm, Md.—(301) 592-7022; WFBR 1300AM
Houston, Tex.—(713) 484-2008; KTRH 740AM
Huntsville, Ala.—(205) 830-5900
Mayfield, Pa.—(717) 876-4560; WARM 590AM, WEJL 630AM or WCDL 1440AM
McLean, Va.—(703) 556-7400; 1500 AM or 630AM
Milledgeville, Ga.—(912) 453-8555; WMVG 1450AM or WKZR 102.3FM
Montgomery, Pa.—(717) 322-4676; WILQ 105.1FM or WYLC 1050AM
Princeton, N.J.—(609) 924-3600; WHWH 1350AM
Roanoke, Va.—(703) 982-6666; Vinton Plant-(703) 985-2203; Service Center-(703) 985-2220
Salisbury, Md.—(301) 548-7800; WICO 94FM or WQHQ 105FM
St. Augustine, Fla.—(904) 829-2501; 107FM, 96.1FM, 103FM, 105FM, 1170AM, 1240AM, or 1420AM
Stuart, Fla.—(305) 335-9300; WZZR 92.7FM or WSTU 1450AM
Sturgis, Mi.— (616) 651-2383; WSTR 99.3FM; Ft. Wayne—WOWO 1190AM
Titusville, Fla.—(305) 268-8400
Tullahoma, Tenn.—(615) 454-7752; WKQD 93.3 FM

Readership Survey

We don't want to do all the talking. We'd like to know what you think about the things you see in these pages. Your comments, suggestions and complaints are welcomed. Please take a few minutes and give us your opinions.

Article	Great	Good	Poor	Didn't Read
ATA (P. 1)	☐	☐	☐	☐
Space Station (P. 1)	☐	☐	☐	☐
LLVs (P. 2)	☐	☐	☐	☐
NASA award (P. 4)	☐	☐	☐	☐
Blood drive (P. 5)	☐	☐	☐	☐
The Pearsalls (P. 6)	☐	☐	☐	☐
Chairman's Letter (Back Page)	☐	☐	☐	☐

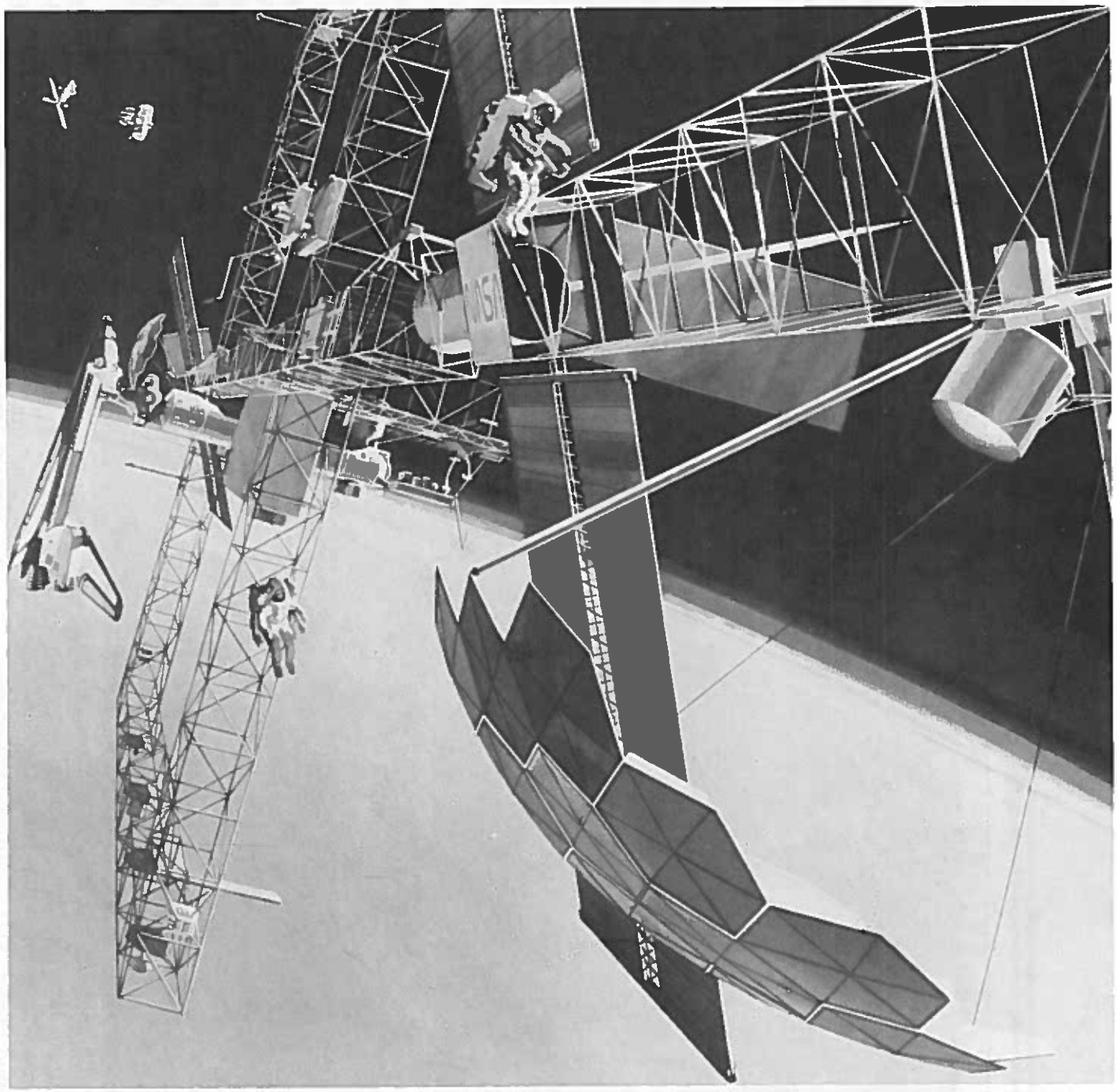
Suggestions For Future Articles:.....
.....
.....

Comments About This Issue:.....
.....
.....

Name.....
(Required If You Wish A Reply) **Ext.**.....
☐ Retiree **Division**.....

Mail to: Grumman World, A22-GHQ
1111 Stewart Ave., Bethpage, N.Y. 11714

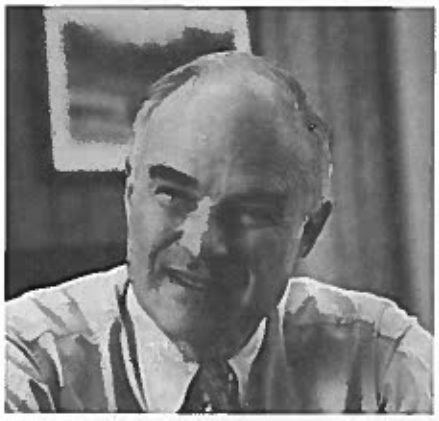
GrummanWorld
January 15, 1988



Living On Top Of The World

As a member of the Boeing-led team that recently won the Space Station Work Package One, Grumman Space Systems Division will design and build the station's crew quarters. The Space Station is scheduled to be assembled in orbit in early 1994 and to be manned by 1995. (See article on page 1)

A Letter From The Chairman



The end of 1987 brought a tangle of announcements, both good news and bad. I want to share some random thoughts with you as we head into a new year.

Grumman people — and Northrop people — did a fine job on the Advanced Tactical Aircraft proposal. An ATA win would have been a significant prize for us, and we were all terribly disappointed when we lost. However, our job was to give our customer an excellent choice, and we did that job well.

We wanted the ATA enough to bid it as a no-profit contract. However, that wasn't enough. We were unwilling to undertake a 10-year development project at a loss.

There's an odd by-product of not winning the ATA. For the past five years, we've had heavy research and development expenses. Winning the ATA would have added tremendously to those expenses for the coming years. This would have made it difficult for us to achieve our objective of improving our earnings from the depressed level of 1987. It's ironic that losing the ATA will improve our earnings for the years ahead.

The A-6 has certainly given us some anxious moments. Grumman people did an extraordinary job in explaining the role of the A-6 aircraft to Congress — to the extent that it continues to be reasonably funded in the next budget year. The Intruder's future is still shaky, of course, and a sigh of relief would be premature — but the situation looks brighter than it did six weeks ago.

We're not the only ones having our troubles. Congress has imposed new expenses on the U.S. Postal Service, causing it to cut back many expenditures. It is significant that they chose to cut services rather than reduce their order for Grumman LLVs. It underscores the Postal Service's confidence in the LLV as a necessary investment that will save them money in the long haul.

The second Reagan-Gorbachev summit was a success. The third one holds promise of an agreement to reduce ICBMs and armed forces in Europe starting next summer. This would be good for the whole world. It would bring greater peace of mind to all of Europe.

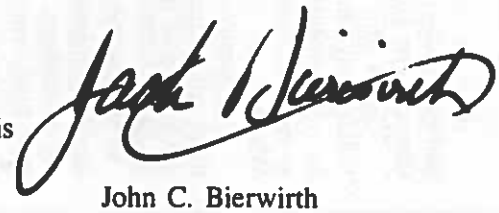
A reduction in armed forces could reduce Soviet and U.S. defense budgets substantially: the biggest item in the defense budget is people, not equipment. This would leave room for investments in advanced technology, to make the remaining forces more effective. That would make many of our new programs, such as Joint STARS, more necessary and could take some of the pressure off ongoing programs, such as the F-14 and A-6.

A decrease in strategic weapons generally calls for an increase in tactical weapons. A war between the superpowers becomes less likely — but in recent years we have seen an increase in conflicts in the Third World. We need tactical weapons for those conflicts.

Right now our stock price is down. This is due in part to overall conditions in the stock market since it took a tumble in October.

We would be foolish to ignore the possibility of another unfriendly takeover attempt — and Grumman is not the only company that is concerned about this prospect. This Justice Department has not used the antitrust laws to block many mergers — and, therefore, many takeover artists figure the last year of the Reagan administration is their last great chance to make a run.

A hostile takeover is not going to happen without the consent of Grumman people, who are the major shareholders of this company. And all of us know that Grumman is not up for sale.



John C. Bierwirth
Grumman Corporation Chairman

GrummanWorld
A22-GHQ
1111 Stewart Avenue
Bethpage, N.Y. 11714

Bulk Rate
U.S. Postage
Paid
Hicksville, NY
Permit No. 1110